

# **Dubois Telephone Exchange, Inc.**

## **5 Year Service Quality Improvement Plan**

### **Introduction**

Dubois Telephone Exchange, Inc. (DTE) is an Eligible Telecommunications Carrier (ETC) serving northwestern Fremont, southwestern Carbon and southeastern Sweetwater counties in Wyoming; and the northernmost areas of Moffat and Routt counties in Colorado. DTE's company headquarters are located at 12 S. 1<sup>st</sup> Street, Dubois, Wyoming 82513.

DTE has 2 wire centers, DUBSWY and BGGSWY serving 4 exchanges, totaling just over 4,000 square miles (*population density ~ .68 persons/square mile*) in 2 mountainous and isolated geographic areas of Wyoming. As of year-end 2013 the company served a total of 2,071 access lines in four exchanges, or 0.51 access lines per sq mile. Broadband customers totaled 1,282.

Wire Center DUBSWY (Exchanges 455 and 486) serves the upper Wind River Valley of northwestern Wyoming, including the communities of Dubois and Crowheart. Exchange 486 is within the western most part of the Wind River Indian Reservation.

Wire Center BGGSWY (Exchanges 383 and 583) serves the upper Little Snake River Valley of southern Wyoming and northern Colorado, including the communities of Baggs, Dixon and Savery, WY and Slater, CO. Exchange 583 exclusively serves Colorado subscribers. All 4 exchanges are rural and remote, with no nearby large communities.

Elevations range from 6,000 ft to 13,000 ft above sea level. The climate is variable to extreme. Snow fall can exceed 10 ft in depth at elevations greater than 8,500 ft; snow is likely during any month of the year. Temperatures can range from the 80s and 90s in July and August to the minus 30s and 40s in December and January. The average construction season is mid-May to early October.

### **Area Economy and Demographics**

#### **Dubois Exchange 455**

Tourism, recreation, full or part time second home-summer home residents, government and small-scale agriculture drive the Dubois area economy. The total estimated population is 1,803 and the largest community is Dubois, with a population of 971

#### **Dubois Exchange 486**

This exchange is located entirely on the Wind River Indian Reservation (WRIR); and is a mixture of Tribal Trust, allotted and deeded lands. The primary economy is small and mid-scale agriculture. Crowheart serves as the exchange's community center, with a small gas station, store and trading post. The estimated Crowheart CDP population is 141.

#### **Dubois Exchange 383**

The Baggs area economy is driven by energy development and production, agriculture and to some extent a growing tourism and recreation industry. The total estimated population is 667 and the largest community is Baggs with a population of 440.

#### **Dubois Exchange 583**

This exchange is entirely within the state of Colorado (area code 970), encompassing the northern-most parts of Moffat and Routt Counties. The economy is almost exclusively agricultural with a minor amount of recreation and oil and gas development. The estimated population is 110.

## **Anchor Institutions and Existing Service Type (FTTx, Copper, Scheduled Upgrade)**

### Dubois Exchange 455

- Dubois (HS, MS, Elem)School (Fremont Co School Dist #2) *existing FTTP*  
700 N 1<sup>st</sup> Street, Dubois, WY 82513
- Dubois Branch Library (Fremont Co Library System) *existing FTTP*  
202 N 1<sup>st</sup> Street, Dubois, WY 82513
- Dubois Medical Clinic *FTTP*  
5647 US Highway 26, Dubois, WY 82513

### Dubois Exchange 486

- Crowheart Elementary School (Fremont Co School District #6) *existing FTTP*  
8434 US Highway 26, Crowheart, WY 82512
- Crowheart Community Center/Big Wind Hall/Library *existing FTTP*  
33 Old Yellowstone Highway, Crowheart, WY 82512

### Dubois Exchange 383

- Little Snake River Valley School (Carbon Co School District #1) *existing FTTP*  
333 N Street, Baggs, WY 82321
- Little Snake River Valley Branch Library *existing Copper with FTTP Upgrade in 2015*  
105 2<sup>nd</sup> Street, Baggs, WY 82321

### Dubois Exchange 583

- No anchor institutions present

## **Other Infrastructure**

Commercial power is available in all exchanges.

## **Current RUS Information**

DTE received a new RUS 5 year infrastructure loan (WY515 K Loan) in 3<sup>rd</sup> Qtr 2011 for construction and installation of FTTx, Next Generation Broadband Loop Carrier and fixed WLL Voice/Data additions and upgrades throughout its exchanges.

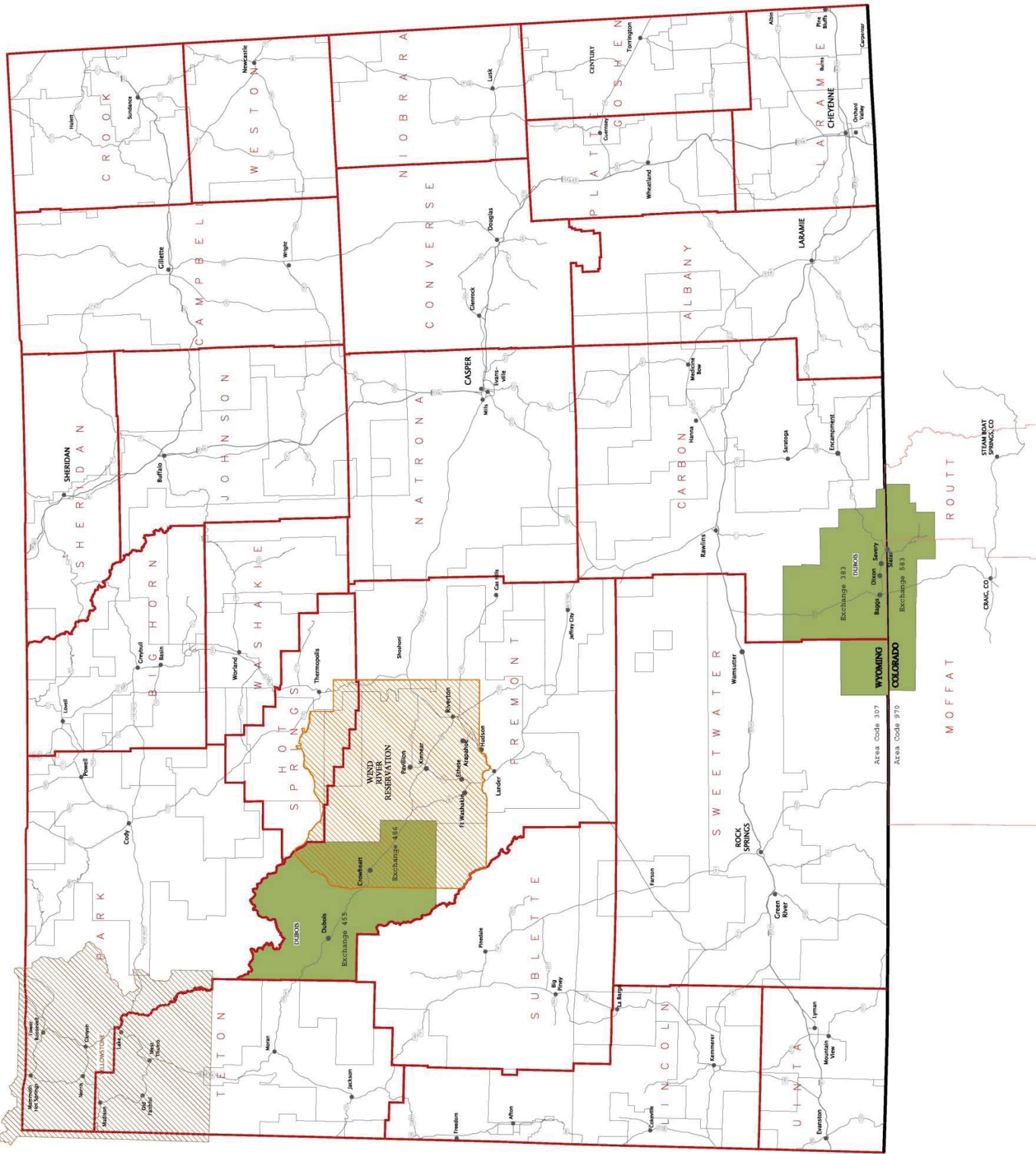
## **Current USAC Information**

Per the Universal Service Administrative Company (USAC), during the calendar year 2013, DTE received a total of \$2,496,765 in USF support funds. The breakdown of the funding for the year was:

High Cost Loop	\$1,052,397
ICLS	\$902,694
CAF ICC	<u>\$541,674</u>
	\$2,496,765

All funds were used in 2013 to maintain, upgrade, improve and cover operating expenses as necessary for advanced voice and broadband services throughout its 4 exchanges.

LOCATION MAP  
DUBOIS TELEPHONE EXCHANGE SERVICE AREA



## 5 Year Service Quality Improvement Plan by Year

For the next 5 years DTE will augment its existing soft switch platform and fiber distribution network to expand enhanced voice service and broadband capabilities greater than or equal to 10/1-2 mb for the majority of customer locations. DTE intends to accomplish this by: 1) “shortening existing copper loops” via addition of FTTN Broadband Loop Carrier (BLC) along the fiber distribution network; 2) add new or additional fiber as needed and that is economically viable; 3) deploy advanced wireless to small subscriber count BLCs and/or 2-line ONTs in select locations, in lieu of prohibitively expensive FTTx solutions.

Today, at least 6 identified locations, due to distance, extreme remoteness and excessive costs, are best served using satellite technology.

This 5 year plan is a logical extension of the RUS funded upgrade plan that started in 2012 with a fiber and BLC upgrade of the oldest rural copper route (Slater Creek) in Baggs (Exch 583). In 2013, DTE completed a FTTH rebuild for the town of Dubois and began replacement of legacy Digital Loop Carrier (DLC) sites with next gen BLCs. In 2014, a significant number (11) of legacy DLC sites north and east of Dubois (Exch 455 and 486) are being replaced with VDSL 2+ capable BLCs. A new back-up generator system at the BGGSWY wire center and a 20 mile fiber addition west of Dubois (Exch 455) are scheduled for completion by end of the 3<sup>rd</sup> qtr. Finally, a fiber upgrade of another old copper route (Savery Creek-Exch 383) and the FTTH rebuild for the town of Baggs (Exch 383) are scheduled for bid in 4<sup>th</sup> qtr 2014 with construction to start in 2015.

This plan will be reviewed on an annual basis. DTE may make adjustments in future year’s planned projects based on significant issues such as rights-of-way, federal and/or state regulatory conditions and/or changes in technology and vendor support. Any adjustments to the 5 year improvement plan will be explained and supported in subsequent annual reports.

### YEAR 2015

#### Exchange 455

- Continue working with the Eastern Shoshone and Northern Arapaho Tribes (Tribal r/w considerations) to close a fiber optic distribution and transport gap between Ethete and Arapahoe on the Wind River Indian Reservation (*note: this project is outside DTE exchange serving areas, but is important to DTE for added transport connectivity to outside world. Routing of the transport fiber benefits additional critical Tribal locations.*)
- Deploy P2P advanced wireless to small form factor BLC (12 subs) and/or 2-line ONT in select locations

#### Exchange 486

- Burris fiber (dependent on Tribal r/w) or wireless ethernet/BLC upgrade. **Subscribers:12** (*note may schedule for 2014*)
- Deploy P2P advanced wireless to small form factor BLC (12 subs) and/or 2-line ONT in select locations

#### Exchange 383

- FTTH town of Baggs to replace aged/depreciated copper plant **Subscribers:325**
- Finish Upper Savery Creek fiber/BLC upgrade (started 2014) **Subscribers:12**

#### Exchange 583

- Deploy P2P advanced wireless to small form factor BLC (12 subs) and/or 2-line ONT in select locations

### YEAR 2016

#### Exchange 455

- BLC additions/upgrades Dubois West (Brooks, Pinnacles, TVRC, Porcupine, Dunoir) **Subscribers:156**
- Continue working with the Eastern Shoshone and Northern Arapaho Tribes (Tribal r/w considerations) to close a fiber optic distribution and transport gap between Ethete and Arapahoe on the Wind River Indian Reservation (*note: this project is outside DTE exchange serving areas, but is important to DTE for added transport connectivity to outside world. Routing of the transport fiber benefits additional critical Tribal locations.*)



## **Year 2016 (continued)**

### Exchange 486

- BLC additions Crowheart East #1 and Crowheart West **Subscribers:24**
- Deploy P2P advanced wireless to small form factor BLC (12 subs) and/or 2-line ONT in select locations

### Exchange 383

- Fiber/BLC addition Dixon Airport area **Subscribers:12**

### Exchange 583

- Fiber/BLC upgrade South Baggs **Subscribers:24**
- Deploy P2P advanced wireless to small form factor BLC ( $\leq 12$  subs) and/or 2-line ONT in select locations

## **YEAR 2017**

### Exchange 455

- BLC additions/upgrades Dubois West: Pinnacles Summer Homes **Subscribers:12**
- Fiber or wireless Ethernet/BLC upgrade Upper/Lower Dunoir **Subscribers:20**
- BLC additions/upgrades Dubois East (Kahin, Fish Hatchery/CM Ranch) **Subscribers:18**
- Continue working with the Eastern Shoshone and Northern Arapaho Tribes (Tribal r/w considerations) to close a fiber optic distribution and transport gap between Ethete and Arapahoe on the Wind River Indian Reservation (*note: this project is outside DTE exchange serving areas, but is important to DTE for added transport connectivity to outside world. Routing of the transport fiber benefits additional critical Tribal locations.*) Possible Construction

### Exchange 486

- BLC additions/upgrades Crowheart West (Red Rocks) **Subscribers:12**
- IP Ethernet Radio/BLC upgrade Crowheart North (Rivers Edge) **Subscribers:6**
- BLC additions/upgrades Crowheart East #2 **Subscribers:12**
- Deploy P2P advanced wireless to small form factor BLC ( $\leq 12$  subs) and/or 2-line ONT in select locations

### Exchange 383

- Finish Fiber/BLC addition Dixon Airport area

### Exchange 583

- Fiber or wireless Ethernet/BLC upgrade Baggs Downriver **Subscribers:12**
- Deploy P2P advanced wireless to small form factor BLC ( $\leq 12$  subs) and/or 2-line ONT in select locations

## **YEAR 2018**

### Exchange 455

- Fiber/BLC upgrades Dubois West (Stoney Point, Mustang Meadows, Pony Creek) **Subscribers:54**

### Exchange 486

- Fiber(*Tribal r/w requirements*) or P2P advanced wireless/BLC upgrades (Crowheart North, Old Yellowstone) **Subscribers:36**
- Deploy P2P advanced wireless to small form factor BLC ( $\leq 12$  subs) and/or 2-line ONT in select locations

### Exchange 383

- Routine service & Maintenance activity (identified upgrades essentially complete)

### Exchange 583

- Fiber/BLC upgrades (East Slater, West Old School) **Subscribers:18**
- Fiber/BLC upgrades (West & Upper Gold Blossom) **Subscribers:18**
- Deploy P2P advanced wireless to small form factor BLC ( $\leq 12$  subs) and/or 2-line ONT in select locations

## **YEAR 2019**

### Exchange 455

- Fiber/BLC upgrades Dubois East (Leseberg, Hamilton, Inberg Habitat) **Subscribers:22**

### Exchange 486

- Continue fiber(*Tribal r/w requirements*) or wireless ethernet/BLC upgrades (Crowheart North, Old Yellowstone)
- Deploy P2P advanced wireless to small form factor BLC ( $\leq 12$  subs) and/or 2-line ONT in select locations

### Exchange 383

- Routine service & Maintenance activity (identified upgrades essentially complete)

### Exchange 583

- Finish fiber/BLC upgrades (East Slater, West Old School)
- Finish fiber/BLC upgrades (West & Upper Gold Blossom)
- Deploy P2P advanced wireless to small form factor BLC ( $\leq 12$  subs) and/or 2-line ONT in select locations

## **YEARS 2015-2019**

- Routine installations, OSP construction/maintenance
- L&B maintenance/additions/repairs
- Test Equipment/tools/Engineering & Plant software/training
- Vehicle Replacements as needed